

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2000-251908

(43) Date of publication of application : 14.09.2000

(51)Int.Cl. H01M 8/02  
H01M 8/04  
H01M 8/10

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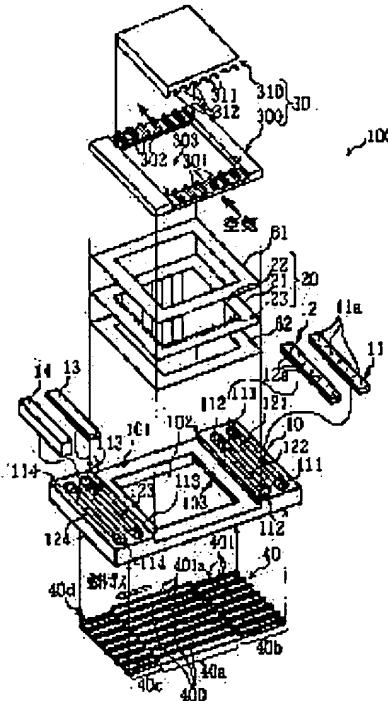
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## (54) SOLID POLYMER FUEL CELL

(57) Abstract:

**PROBLEM TO BE SOLVED:** To improve productivity of a plate-with-rib by installing a pressing holding surface part where an electrode of a cell is pressed at the specified surface pressure and a non-pressing holding surface part where no pressing force is applied or pressing force less than the specified surface pressure is applied in the rib of the plate-with-rib, and forming a water holding layer for absorbing and holding a humidifying agent on the surface excluding the pressing holding surface part.

**SOLUTION:** A cell 20 is pressed and held between a flow path substrate 30 and a plate-with-rib 40 on a fuel electrode side, an oxidizing agent side channel 312 is formed in a space surrounded by an adjacent rib 311 and an oxidizing agent electrode 22, and a fuel electrode side channel 400 is formed in a space surrounded by an adjacent rib 401 and a fuel electrode 23. A pair of manifold hole 111 and long hole 121 for supplying humidifying water of a solid polymer membrane, and a pair of manifold hole 112 and long hole 122 for supplying fuel gas are installed in an upstream part in



the fuel gas passing direction of a frame body 10. A water holding layer is installed on the surface coming in contact with the fuel electrode 23 and excluding the pressing surface for pressing the fuel electrode 23.

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#### LEGAL STATUS

[Date of request for examination] 03.12.2001

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number] 3524802

[Date of registration] 20.02.2004

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

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